

EMC DATA DOMAIN VIRTUAL TAPE LIBRARY FOR IBM i

High-speed, inline deduplication storage for IBM i environments

ESSENTIALS

Scalable Deduplication

- Fast, inline deduplication
- Providing up to 65 PB of logical storage for long-term backup retention
- 10 to 30 times average reduction in backup storage required

Seamless Integration

- Supports IBM Backup Recovery and Media Services (BRMS), Help/Systems Robot/SAVE, LXI Backup Management System, and native IBM i operating systems commands
- Supports IBM Virtual I/O server environments
- IBM i host connectivity through a FC switch or directly connected to the Data Domain system
- Simultaneous use of VTL, NAS, NDMP, and EMC Data Domain Boost

Multisite Disaster Recovery

- 99 percent bandwidth reduction
- Flexible replication topologies
- Cost-efficient disaster recovery

Ultra-Safe Storage for Reliable Recovery

- Continuous recovery verification, fault detection, and healing
- Dual disk parity RAID 6

Management Simplicity

- Task-based intuitive GUI
- Command-line interface for creating scripts

NEXT-GENERATION BACKUP, RECOVERY, AND ARCHIVING

EMC® Data Domain® deduplication storage systems continue to revolutionize disk backup, archiving, and disaster recovery with high-speed, inline deduplication. By consolidating backup and archive data on a Data Domain system, storage requirements can be reduced in size by 10 to 30 times, making disk cost-effective for onsite retention, and highly efficient for network-based replication to disaster recovery sites.

Thousands of companies around the world have deployed IBM i operating environments for managing their high transaction business applications. These deployments can be found in most verticals including banking, financial services, retail, insurance, automotive, and transportation, and span from small, to mid-size, to large enterprises. Given the business critical nature of their IBM i data and restricted IT budgets, companies are looking to improve backup and recovery and eliminate security risks associated with traditional data protection strategies—while managing costs.

IBM i users can now leverage these operational and cost benefits with the EMC Data Domain Virtual Tape Library software option for IBM i.

SCALABLE DEDUPLICATION STORAGE

All Data Domain systems derive their performance advantages from the EMC Data Domain Stream-Informed Segment Layout (SISL™) scaling architecture. This CPU-centric approach minimizes the number of disk spindles required to achieve the throughput performance needed for critical single-stream operations. Data Domain systems store each unique data sequence only once, and save significant physical storage capacity by substituting small references for each identical redundant sequence, enabling cost-efficient retention on disk for fast, reliable recoveries. Snapshot technology further enables extended local and offsite retention on disk.

SEAMLESS INTEGRATION

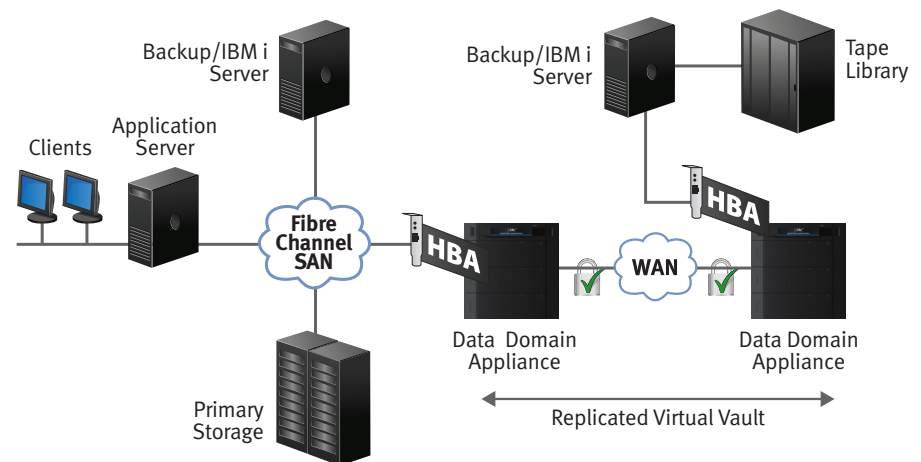
Data Domain systems support simultaneous data access methods through VTL over Fibre Channel, remote NDMP access over Ethernet for network attached storage (NAS), NFS and CIFS file service protocols over Ethernet, and EMC Data Domain Boost. This deployment flexibility and simple administration means users can rapidly adjust to changing enterprise requirements.

Integrating a Data Domain system with DD VTL for IBM i requires no changes to the existing IBM i operating environment. The IBM i server simply connects to the Data Domain system over the Fibre Channel SAN infrastructure and the server treats the Data Domain system as a physical tape library. The IBM Backup Recovery and Media Services (BRMS) application can then create backup policies to protect IBM i business application data with the Data Domain system. There are no additional software components to install on the IBM i server, and all data movement between the server and the Data Domain system is managed by BRMS or native IBM i operating system commands. Up to 540 virtual tape drives can be easily configured to maximize performance throughput. This allows for seamless integration and deployment of the Data Domain system into an existing IBM i environment.

MULTISITE DISASTER RECOVERY

EMC Data Domain Replicator software enables network-efficient replication over existing networks for disaster recovery or distributed enterprise consolidation. With DD Replicator, IBM i data on virtual tapes stored on the EMC Data Domain system can be efficiently replicated over the WAN. Using DD Replicator eliminates the need to manage and transport physical tape cartridges between sites.

Only deduplicated data is replicated to the target site, enabling up to 99 percent bandwidth efficiency compared to what would be required to replicate non-deduplicated virtual tapes over the network. Since the Data Domain replication process does not utilize any IBM i host resources, replication can occur at the same time as backup enabling the fastest time-to-DR readiness. Additionally, if confidentiality is required, deduplicated and compressed virtual tape data can be encrypted in-flight, when replicating between Data Domain systems, independent of the replication topology used.



Data Domain systems with the Data Domain VTL software option connect through a Fibre Channel SAN and deduplicate data inline during the backup process for open systems and IBM i backup environments. Virtual tapes can be stored onsite for operational recovery or offsite for disaster recovery readiness.

ULTRA-SAFE STORAGE FOR RELIABLE RECOVERY

Virtual cartridges containing backup images are protected using the EMC Data Domain Data Invulnerability Architecture. The Data Domain Data Invulnerability Architecture provides the industry's best defense against data integrity issues. Inline write and read verification

protects against, and automatically recovers from, data integrity issues during data ingest and retrieval. Capturing and correcting I/O errors inline during the backup process eliminates the need to repeat backup jobs, ensuring backups complete on time and satisfy service level agreements. Unlike other enterprise arrays or file systems, continuous fault detection and self-healing features protect data throughout its lifecycle on all Data Domain systems.

MANAGEMENT SIMPLICITY

Data Domain systems are simple to install and manage. Administrators have a centralized management view with EMC Data Domain Enterprise Manager, a browser-based graphical user interface, or through command-line over SSH. The intuitive, task-based DD Enterprise Manager simplifies VTL configuration and ongoing management. Additionally, initial configuration and configuration updates can easily be made for multiple systems along with the monitoring of system states and the state of system operations. Simple scriptability, along with SNMP monitoring provides additional management flexibility.

SPECIFICATIONS

SOFTWARE

EMC Data Domain Operating System (DD OS) 5.0 or later

EMC Data Domain Virtual Tape Library software option (for IBM i operating environments)

IBM i OS: V5R4M5, V6R1M0, V6R1M1, and V7R1M0

IBM i Virtual I/O Server: v2.1 and v2.2

HARDWARE

EMC Data Domain Appliance Series

IBM Power Systems Servers: POWER5, POWER6, POWER7

IBM Host Bus Adapters: IOA or IOP

NETWORK CONNECTIVITY

Fibre Channel switch between IBM i servers and EMC Data Domain systems is optional; refer to the EMC Compatibility Matrix for approved switches, HBAs, and platforms.

CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com.

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